

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-107826

(43)Date of publication of application : 17.04.2001

(51)Int.Cl.

F02M 61/18
F02M 61/10

(21)Application number : 11-289821

(71)Applicant : TOYOTA MOTOR CORP

(22)Date of filing : 12.10.1999

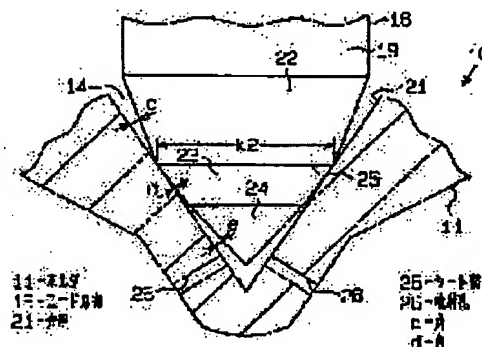
(72)Inventor : ISHIZAKA KAZUYOSHI

(54) FUEL INJECTION NOZZLE FOR CYLINDER INJECTION TYPE INTERNAL COMBUSTION ENGINE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a fuel injection nozzle for a cylinder injection type internal combustion engine capable of suppressing the change of a sheet diameter during wear of a sheet part and the increase of a delay in valve opening.

SOLUTION: A needle valve 16 is slidably situated in a holder 11. A first conical base part 22 and a second conical base part 23 continued to the first conical base part 22 are formed at the needle valve 16. A seat part 25 separately seating at the valve seat 21 of a holder 11 is formed at a joint part between the first and second conical parts 22 and 23. An angle (c) between the peripheral surface of the first conical base part 22 and the valve seat 21 in a position situated downstream from the seating part and the valve seat 21 is set to a value higher than an angle (d) between the peripheral surface of the second conical part 23 and the valve seat 21. The angle (d) is set to a low value at the outside of a seat diameter k_2 to reduce the bearing pressure of the seat part 25 and wear of the seat part 25 is reduced.



LEGAL STATUS

[Date of request for examination] 18.04.2002

[Date of sending the examiner's decision of rejection] 29.06.2004

[Kind of final disposal of application other than the examiner's decision of rejection or application]

Searching PAJ

Page 2 of 2

converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of
rejection][Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]